

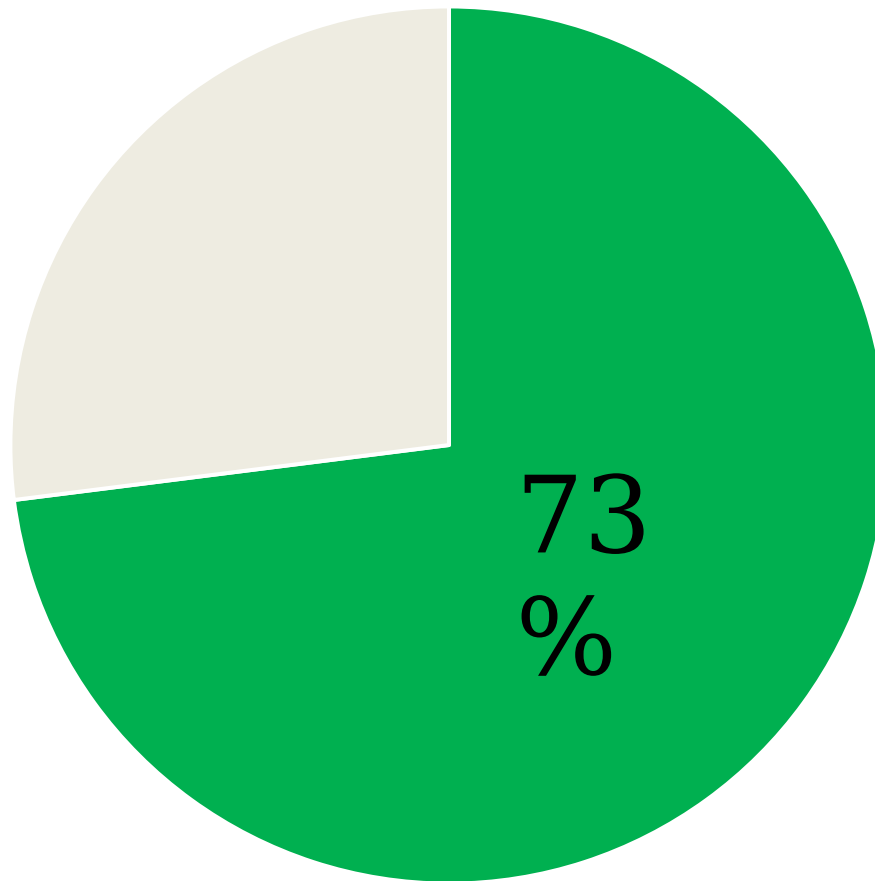
The Market for Green Products

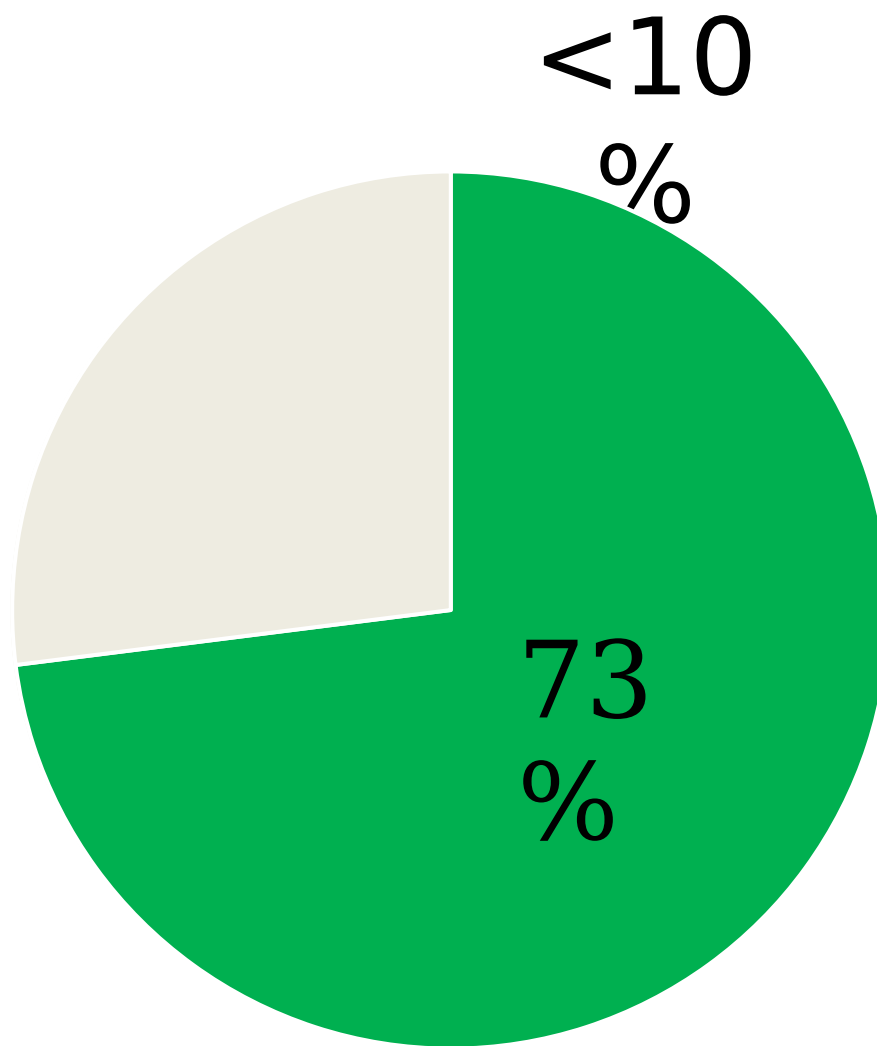
Business and the Environment

Magali Delmas
UCLA











Green consumer categories

Dark Green Consumers	Light Green Consumers	Excuse-makers	Brown Consumers
<ul style="list-style-type: none"> ■ True Blue Greens, Greenback Greens (Coddington) ■ Committed Environmentalist (McEachern; Glig et al.) ■ Vocal Activists, Principled Pioneers (Tiltman) ■ Addicts (Chitra) 	<ul style="list-style-type: none"> ■ <i>Sprouts</i> (Coddington) ■ Conceivables (McEachern) ■ Mainstream Environmentalists (Glig et al.) ■ Conveniently Conscious (2007) ■ Aspirants, Adjusters (2007) 	<ul style="list-style-type: none"> ■ Grouzers (Coddington) ■ Non-believers, Buck-passers (Brown and Wahlers) ■ Occasional Environmentalists (Glig et al.) 	<ul style="list-style-type: none"> ■ Basic Browns (Coddington) ■ Complacents (McEachern) ■ Non-environmentalists (Glig et al.) ■ Onlookers (Tiltman) ■ Avoiders (Chitra)

Dark Green
Consumers

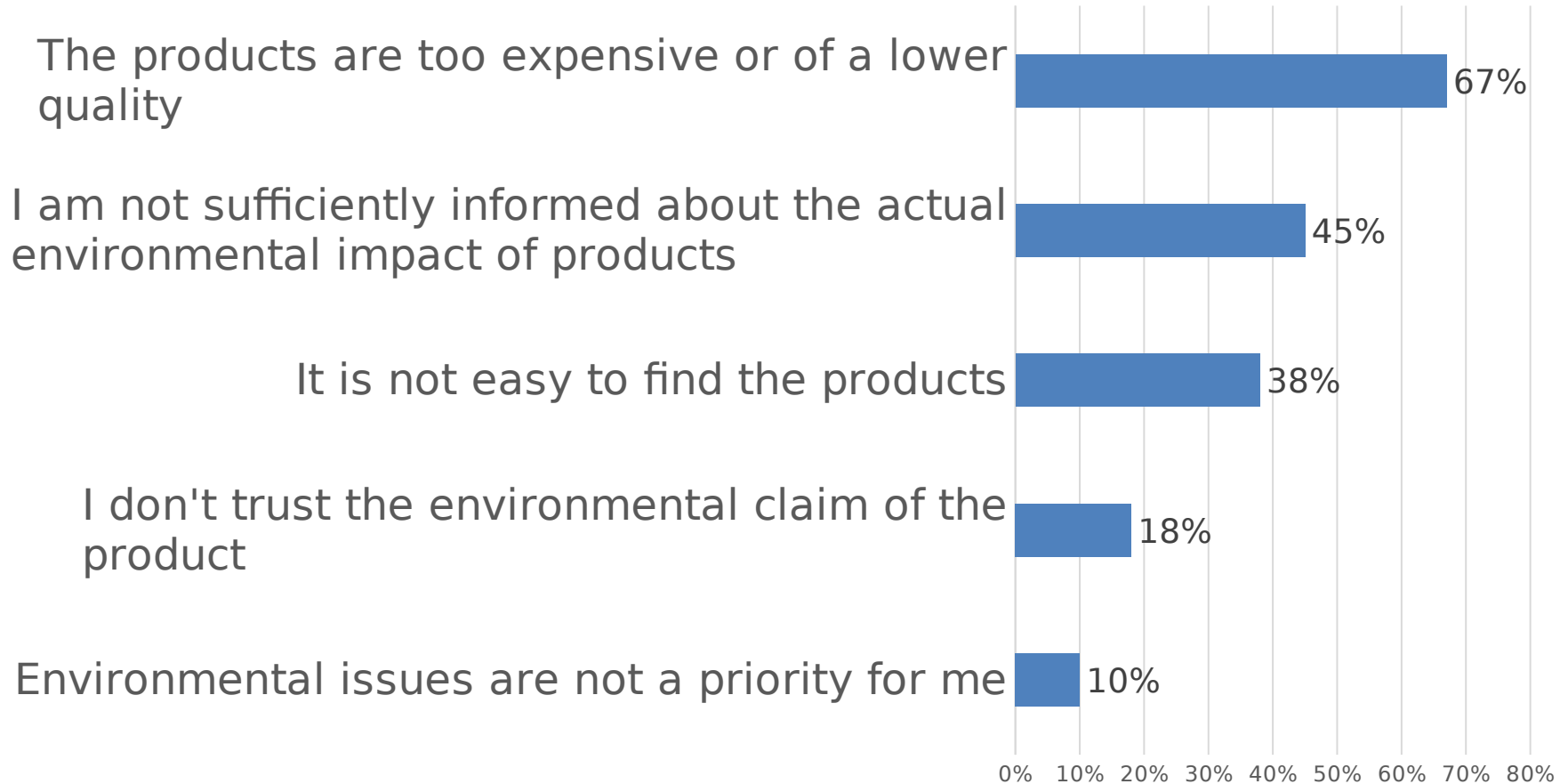


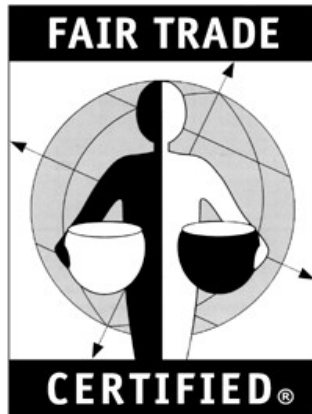
Brown
Consumers



Convenient
Environmentalis
ts

The excuses...









The “Hobbit” shoe





CODA
\$37,400
after tax
savings

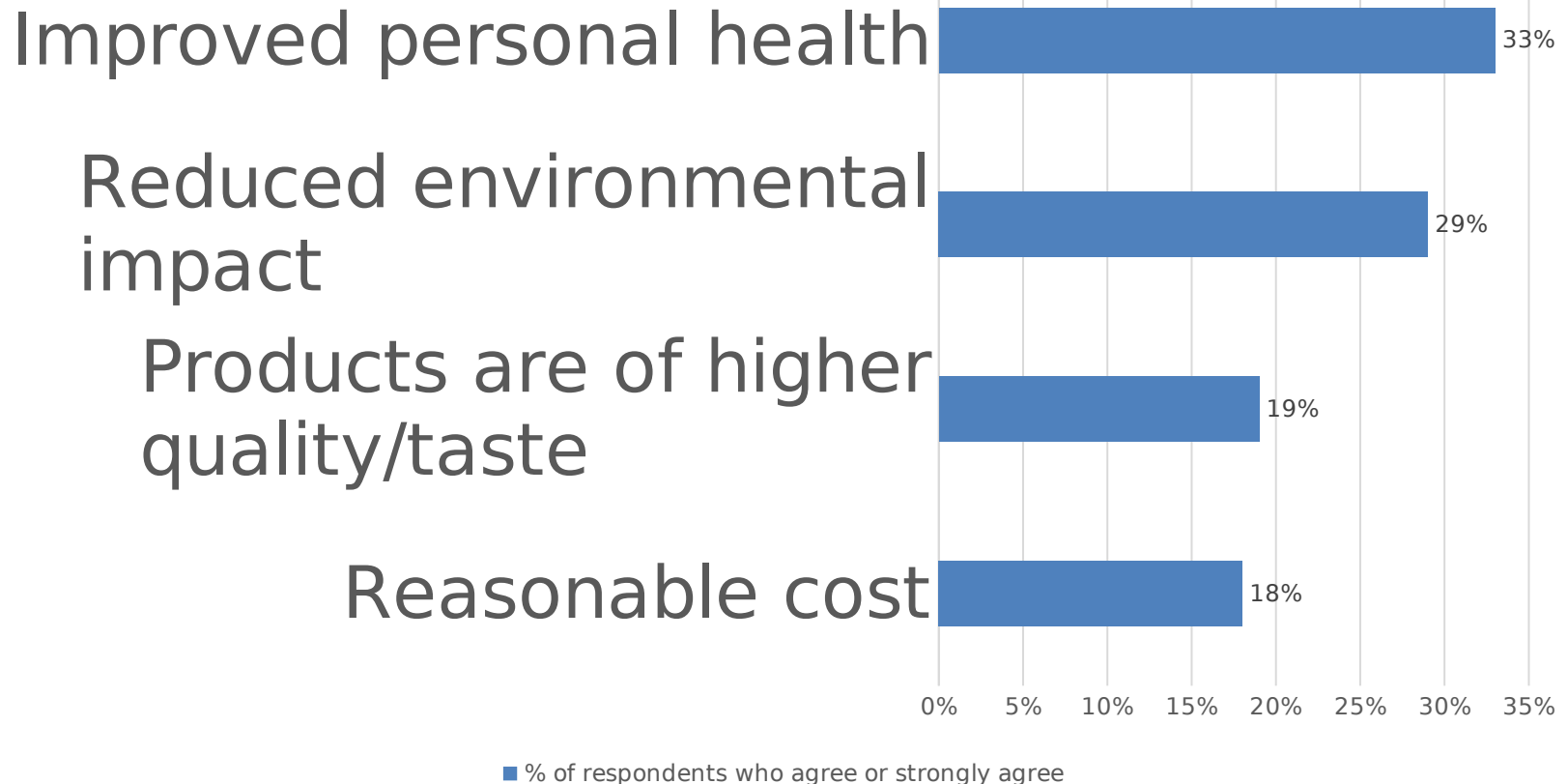
Kia Rio
\$15,000



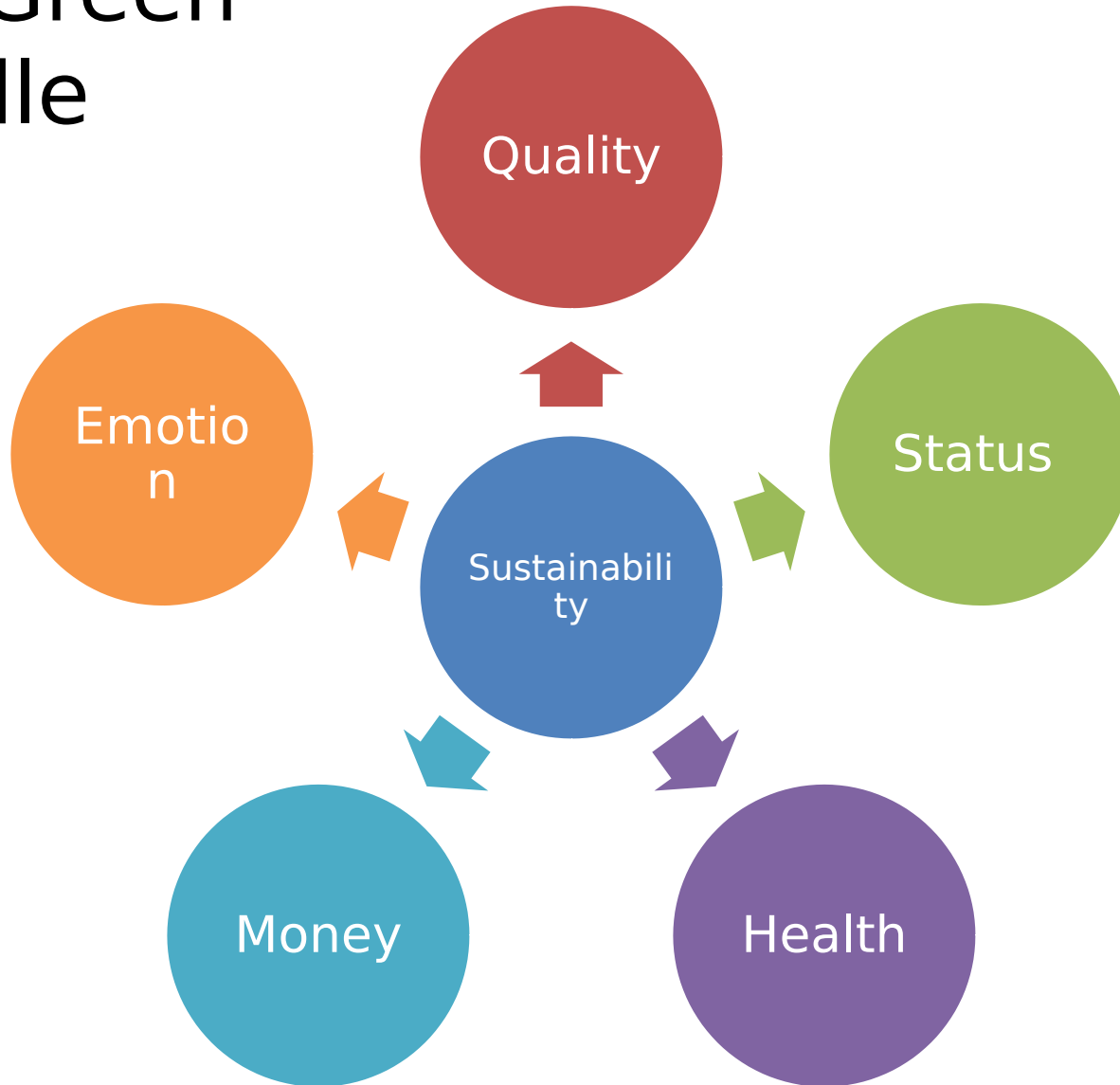


Why purchase green products?

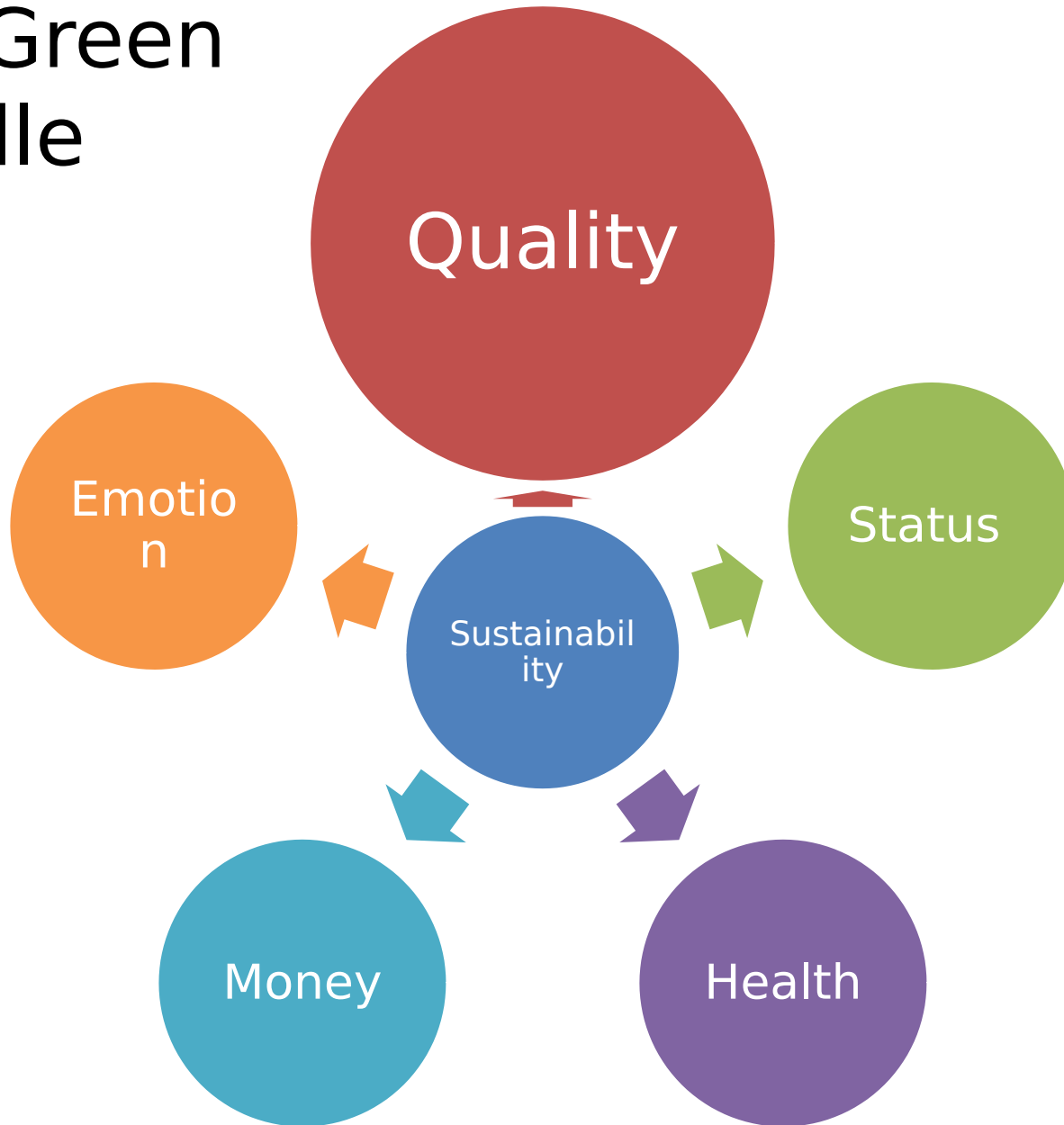
I buy environmental friendly products because...



The Green Bundle



The Green Bundle





“The Tesla S class is more efficient than a Prius, quicker than a Porsche 911, and has more cargo space than many SUVs.”

Wine



- Eco-certification associated with a ***price premium*** (13%) in the wine industry.
- Certified wines rated about 4 points higher than conventional wines by experts (Wine Spectator, Wine Enthusiast, Wine Advocate).

Performance



Convenience

Comfort



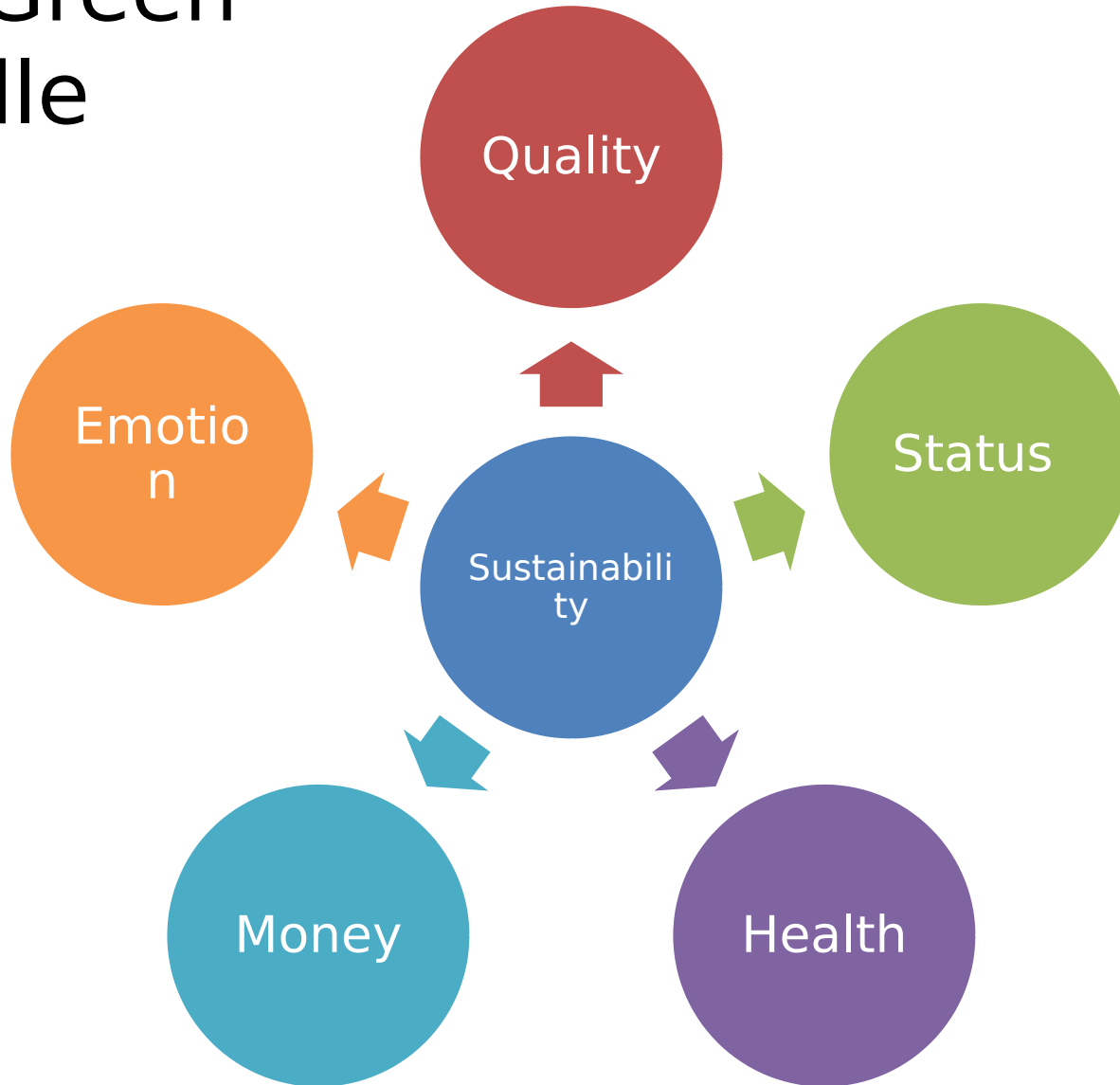
Functionality



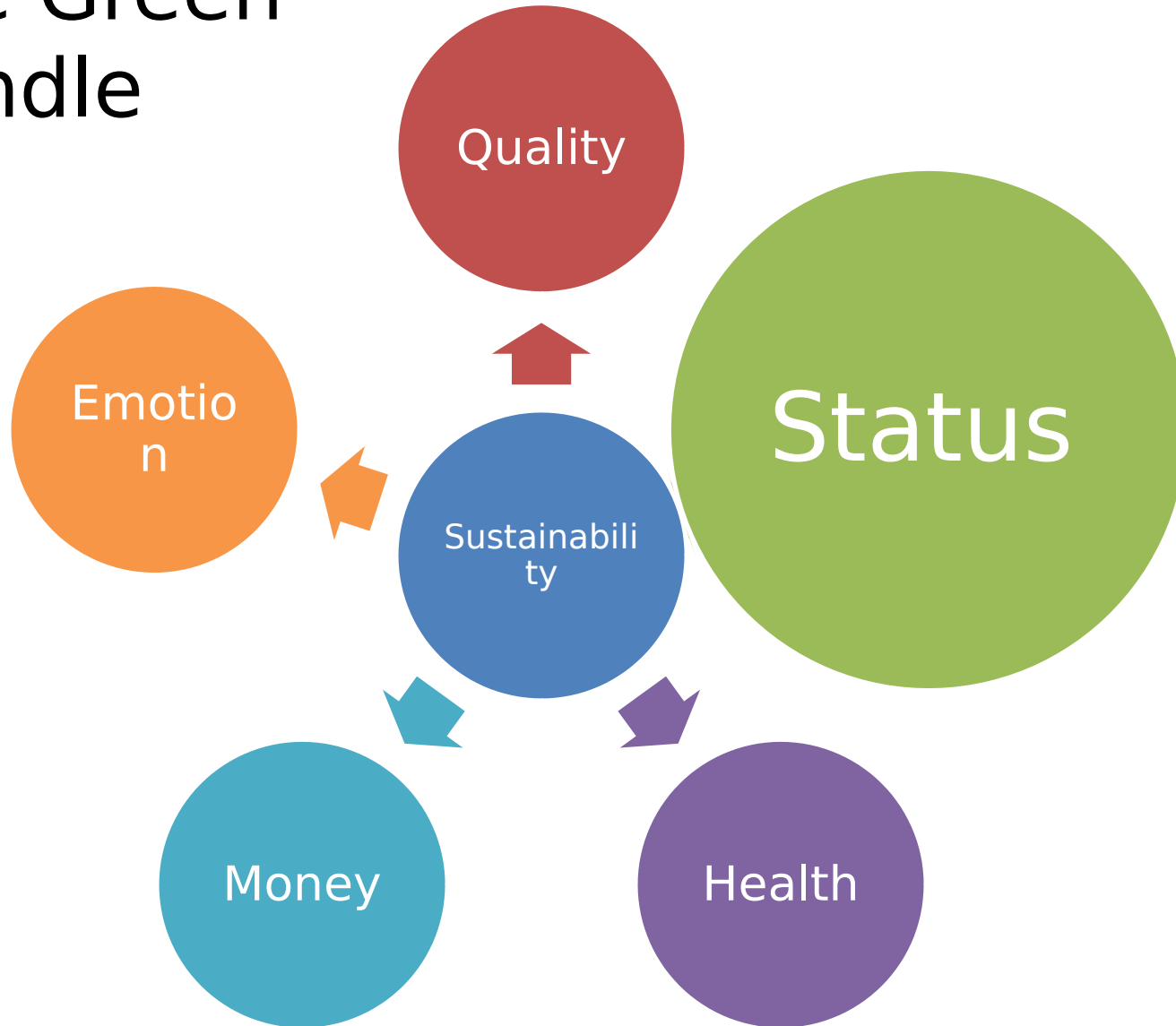
Durability



The Green Bundle



The Green Bundle



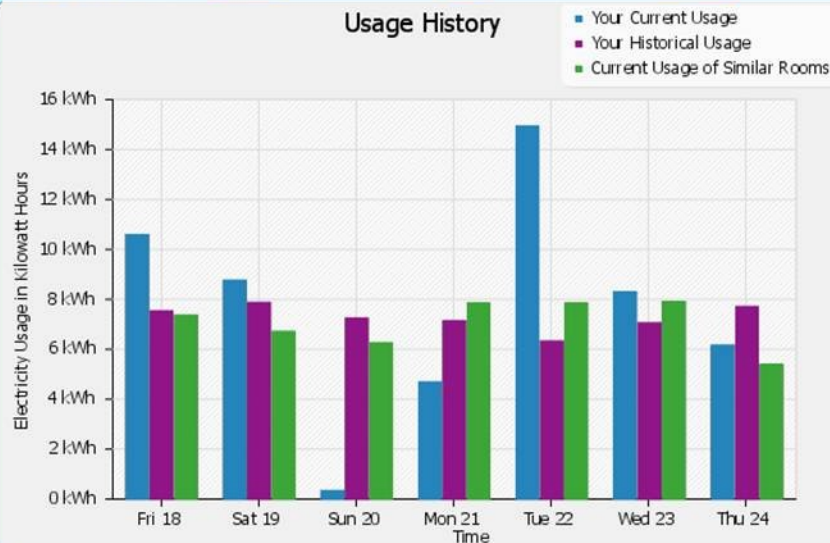
You are currently using **0.081 kilowatts** of electricity.
(updated 36 seconds ago)

This translates to **1.944 kilowatt-hours** a day.
Your historical average is **7.267 kilowatt-hours** a day.

Real-time energy use

Select Duration: [3 Hour](#) [Daily](#) [Weekly](#)

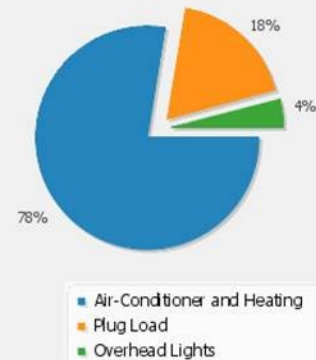
Usage History



[Refresh](#)

Social and historical comparisons

Your Room's Average Power Usage by Source



Energy usage by source

UCLA ENGAGE Energy Stars

- Above average energy saver: A green room used less energy than the average for all similar rooms *
- Below average energy saver: A red room used more energy than the average for all similar rooms *

Residence Plaza	Room	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10
Rieber Terrace	662A	●	●	●	●					
Rieber Vista	559B	●	●	●	●					
Summit	170F	●	●	●	●					
Summit	200	●	●	●	●					
Summit	225C	●	●	●	●					
Summit	225D	●	●	●	●					
Summit	270A	●	●	●	●					
Summit	325A	●	●	●	●					
Summit	325F	●	●	●	●					
Summit	325K	●	●	●	●					
Summit	425H	●	●	●	●					
Summit	425J	●	●	●	●					
Summit	460A	●	●	●	●					
Summit	460B	●	●	●	●					
Summit	560A	●	●	●	●					
Summit	650A	●	●	●	●					
Summit	650E	●	●	●	●					
Summit	650J	●	●	●	●					
Summit	656A	●	●	●	●					
Summit	800	●	●	●	●					
Summit	850D	●	●	●	●					
Summit	870H	●	●	●	●					

Participants in UCLA Engage volunteered to have electricity metering equipment installed in their rooms. The UCLA Engage Energy Stars have personalised online dashboards that show real-time and historical electricity usage for their room. Not all volunteers for UCLA Engage have dashboards and not all are part of the Energy Star program. UCLA Engage thanks all of our volunteers for their effort and integrity.

For more information go to <http://eawins38.ee.ucla.edu/~energy/engage/>

* All comparisons are with rooms of similar size and number of occupants. The energy usage for the average room is calculated as the average across all Engage participants, not just the Engage Energy Stars. This means that everybody in the Engage Energy Star program can conserve electricity and become an above average energy saver. The measurement is for electricity usage only and excludes bathrooms. Heating/cooling, wall outlets and overhead lights are all monitored.

Beverly Hills put a spotlight on its celebrity water wasters

Daily water usage

■ Amy Poehler ■ Average US family
■ WHO daily recommendation

2,800 gallons/day

2,100

1,400

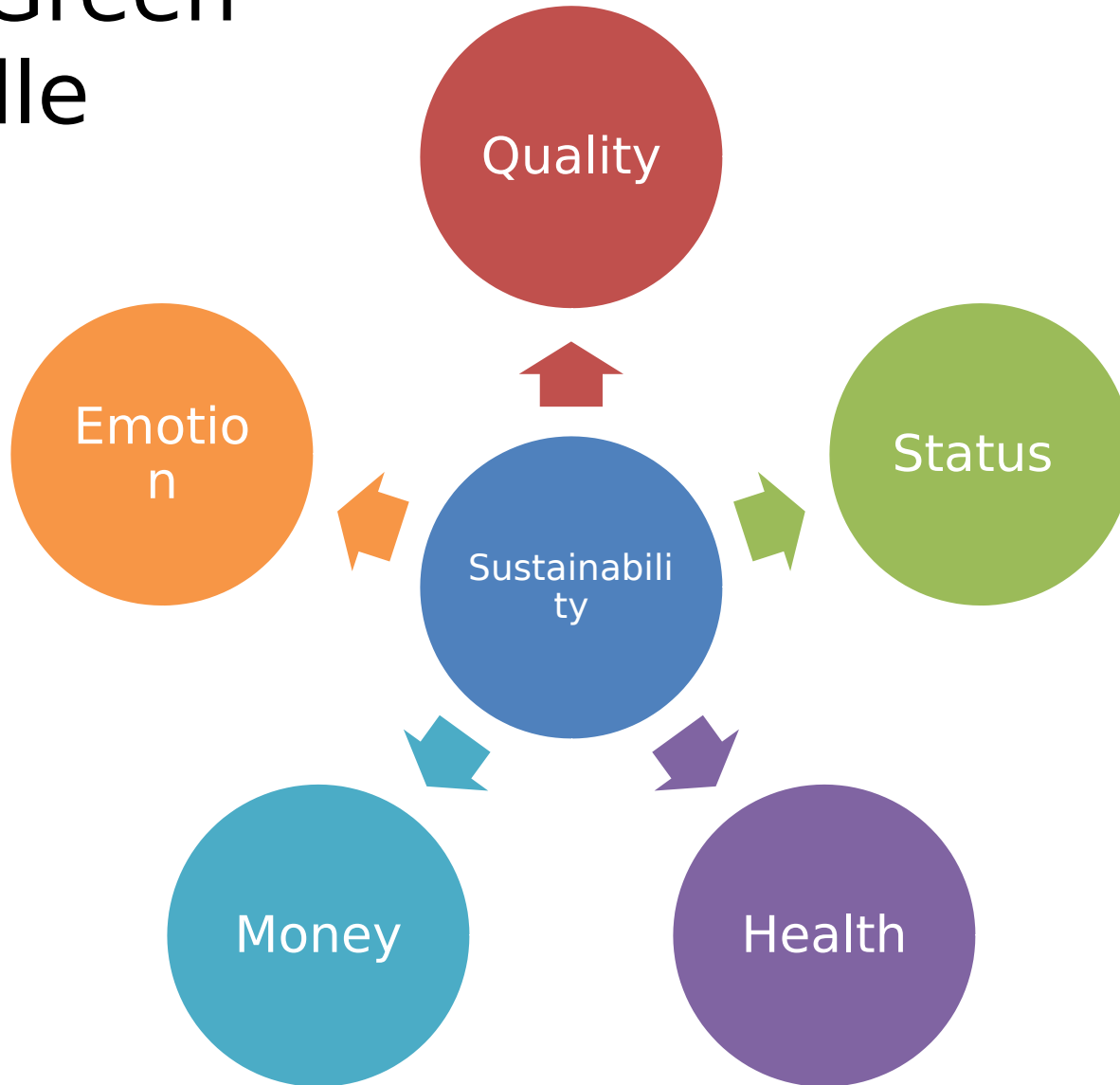
700

0

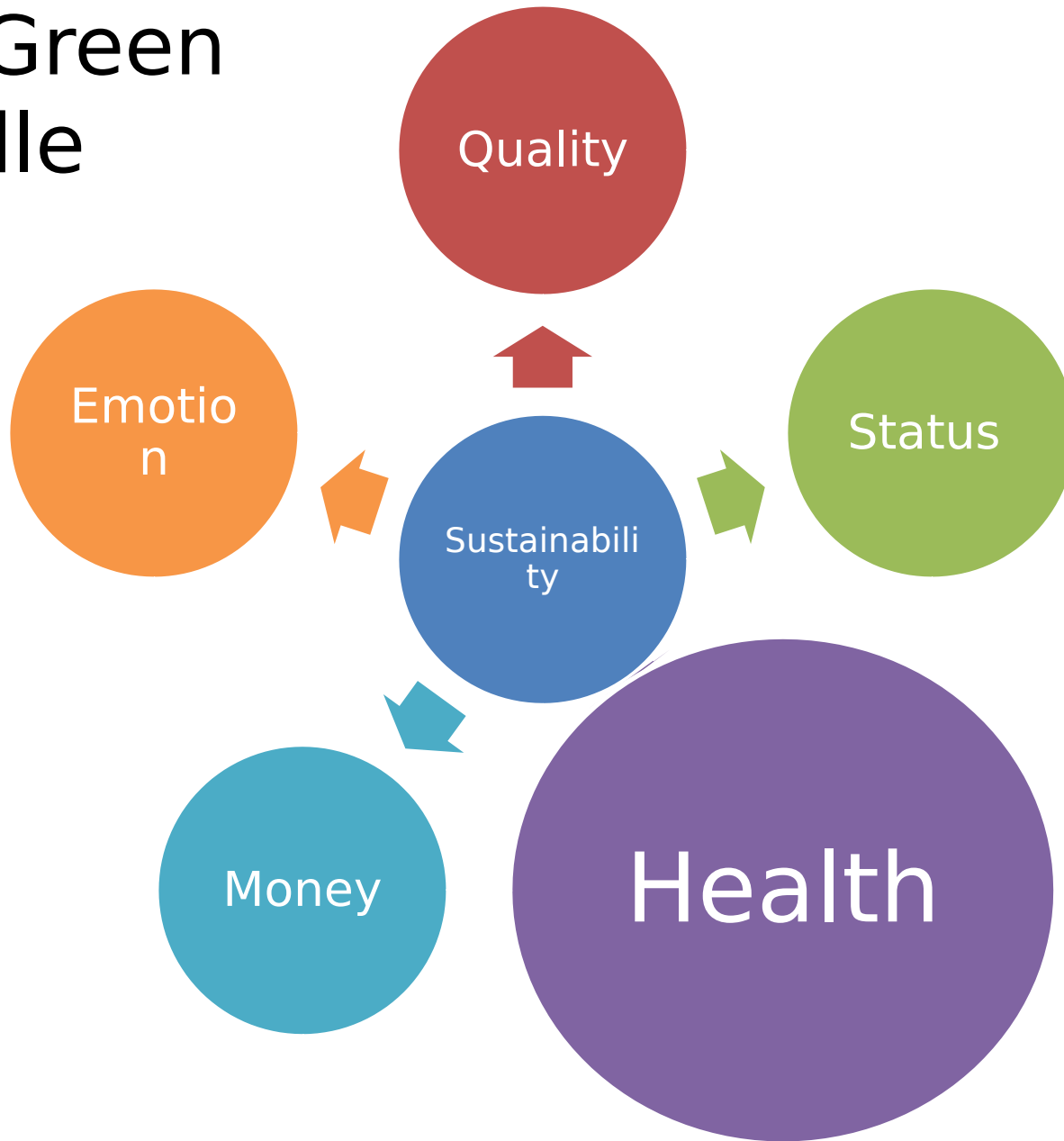




The Green Bundle



The Green Bundle





Organic milk keeps kids healthy!

Organic market doubled in the last decade



- Sixty-seven percent higher levels of vitamins and antioxidants
- Sixty percent more conjugated linoleic acids than regular milk
- Higher levels of good Omega-3s
- Lower levels of Omega-6s than conventional milk.

LEED buildings



- Energy savings, Reduce stormwater runoff, increase groundwater recharge
- Healthier, more pleasant interior environment, improving productivity, reducing illness, bolstering recruitment and raising retention.
- Increase rent? Investment of \$4 per square foot in LEED building features adds about 50 cents per square foot to the annual rent.





Your Impact

Last week you used **113% more** electricity than your efficient neighbors.
You spend **\$112 more** over one year.

[Home](#)[Month](#)[Day](#)[Now](#)

Your electricity usage for **July 23, 2012 - July 29, 2012**

**YOUR
USAGE**



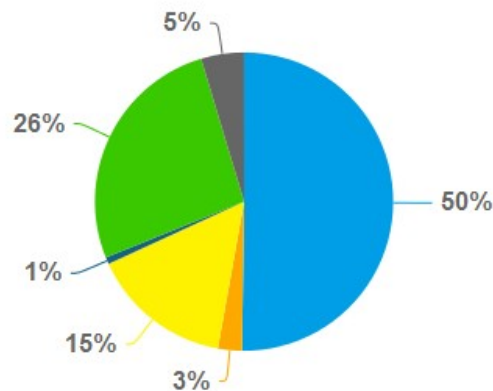
**58
kWh**

**Efficient
Neighbor**



**27
kWh**

Usage by appliance



*Click on the pie to see
more details*



HEATING
COOLING



LIGHTING



PLUG
LOAD



DISHWASHER



FRIDGE



OTHER
KITCHEN

Money vs Health

Information about cost of energy use



Information about impact of energy use on pollution and health



Money vs Health



Your Impact

Money

Last week you used **29% more** electricity than your efficient neighbors.
You spend **\$2.06** more per month for one year.

VS

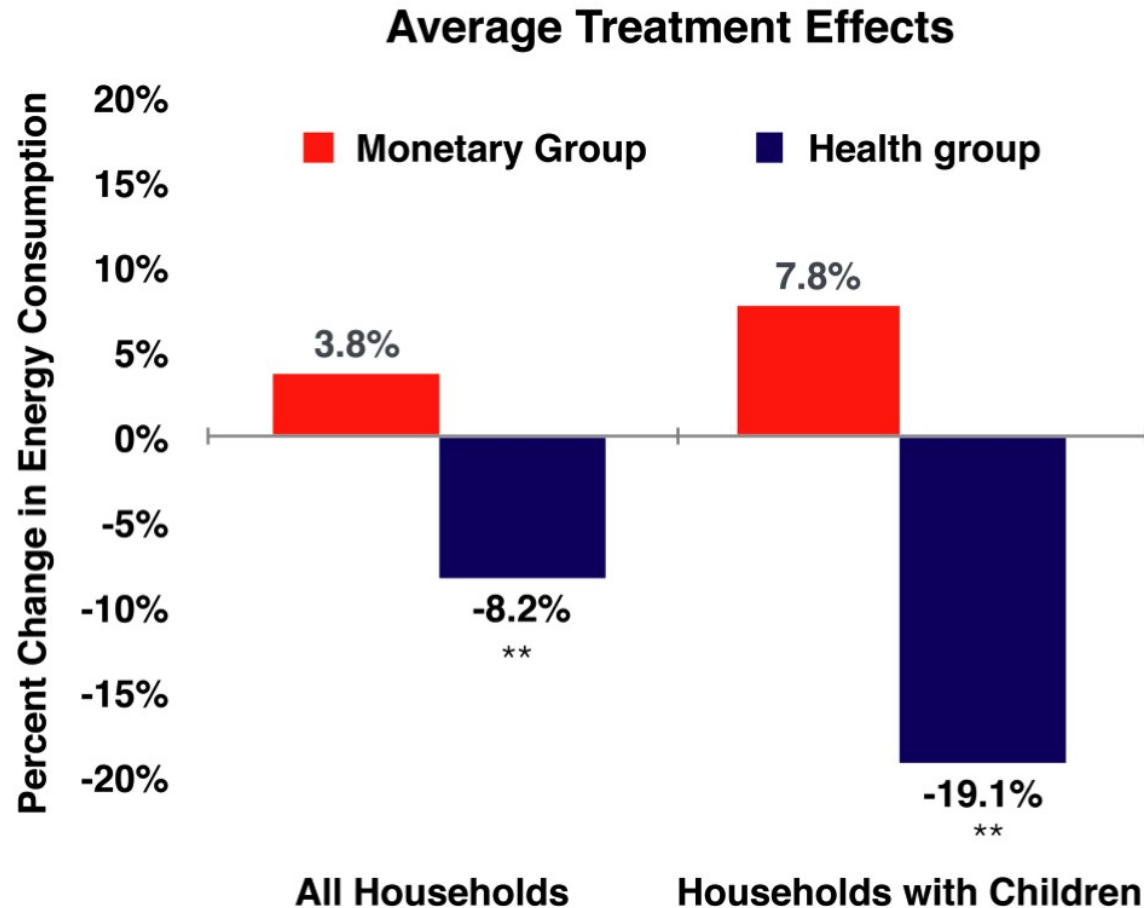


Your Impact

Health

Last week you used **29% more** electricity than your efficient neighbors.
Over one year, you are **adding 456** pounds of air pollutants which contribute to health impacts such as **childhood asthma and cancer**.

Main Treatment Effects



9 months
N=490,994 hourly
kWh observations
118 apartments





HAYWARD HEALTHY HOME™

*A healthy home will last longer than an unhealthy home. It will be more energy efficient.
Its occupants will take better care of it.*



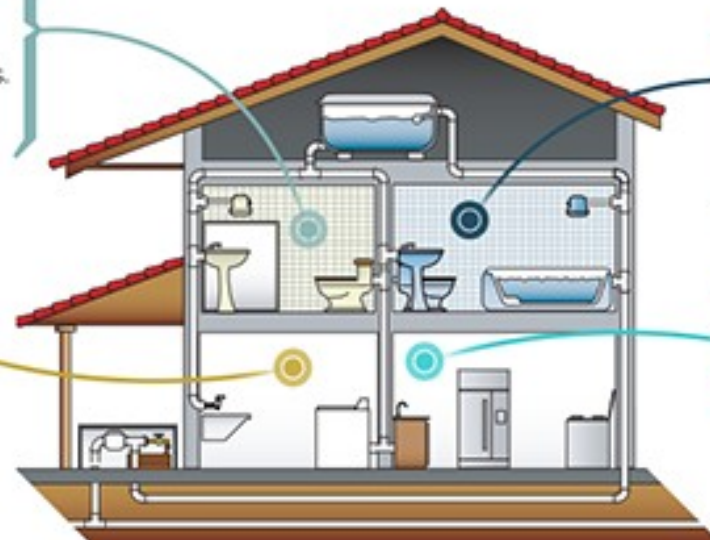
A quieter environment inside

- Privacy-visual, sound, and odors.

Affordable energy use



Continuous, clean, fresh air



Neutral "odors"

- No musty, foul, strong, or mal-odors.

Its own air space

- No odors from neighbors or adjacent apartments or condos.



Even temperature year round

- Not too hot or too cold



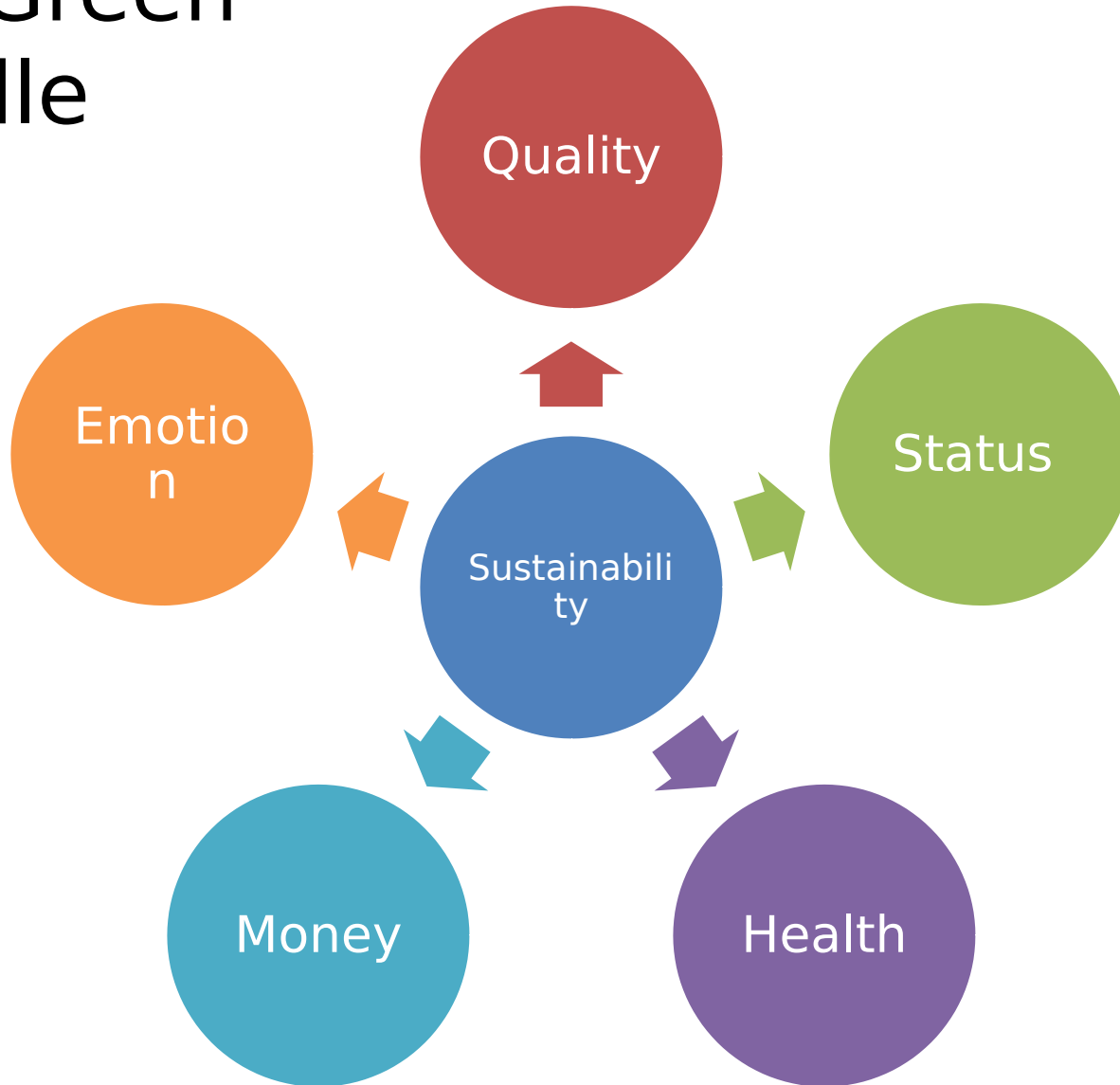
Jessica Alba
Founder

The Honest Company

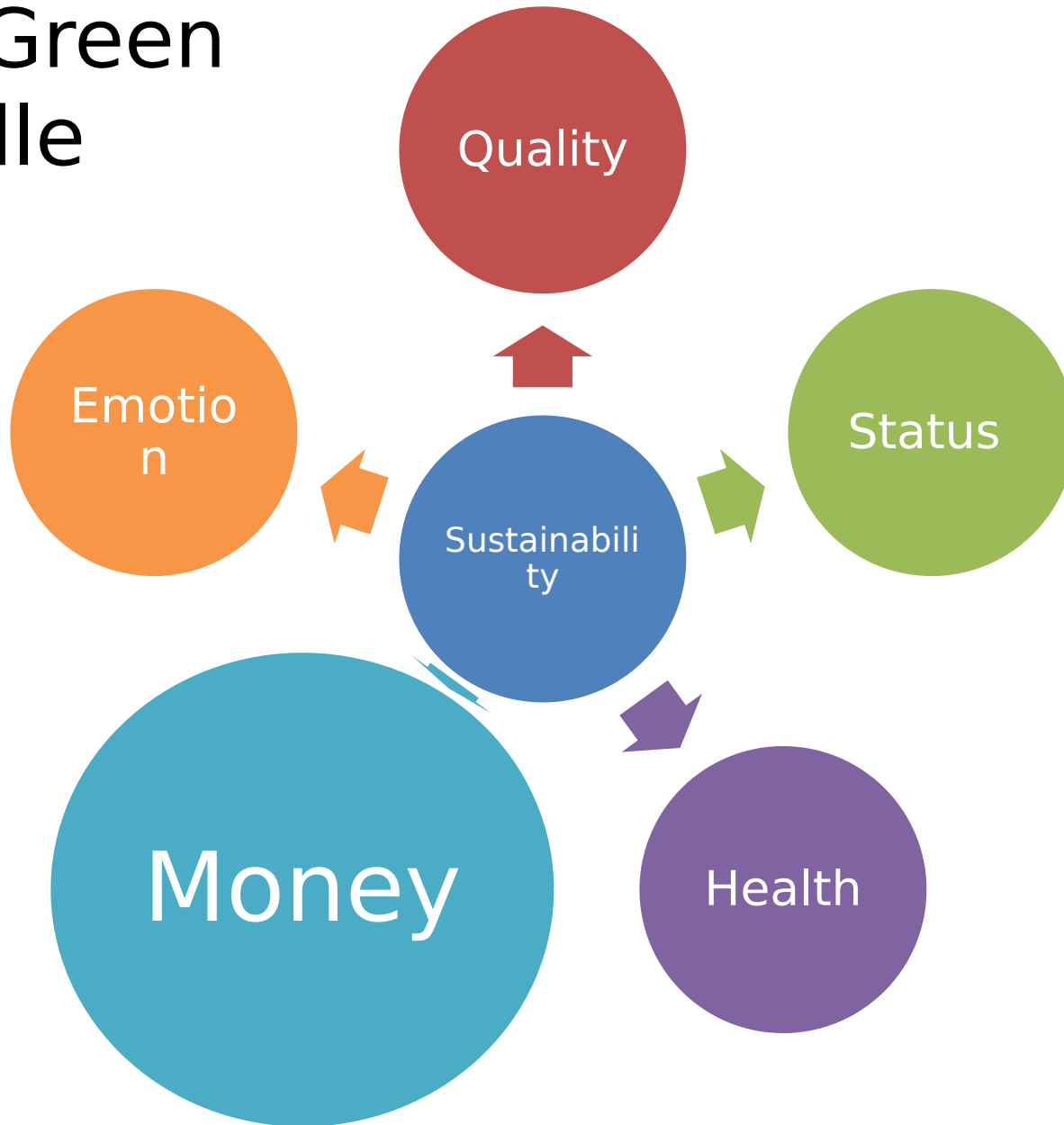
from our family
to yours



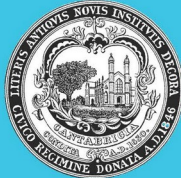
The Green Bundle



The Green Bundle



Money



EFFECTIVE MARCH 31, 2016

**BRING YOUR
BAG.**

Avoid the Cambridge
mandatory bag charge.



Clean bags
regularly to keep
them germ-free.

Minimum
10¢ CHARGE
on each checkout bag.



compostable



recyclable

Cut cost in small pieces

	LOAN	CASH	LEASE	PPA
Down payment	\$0 down	Outright Purchase	\$0 down, full & partial prepay options	\$0 down, full & partial prepay options
Ownership	You	You	SolarCity	SolarCity
Tax credit(s)			NA	NA
Monthly payments	Fixed*	None	Low, fixed with a 0-2.9% annual escalator	Pay for the energy produced, with a 0-2.9% annual escalator
Production guarantee				
Energy monitoring with MySolarCity app				
Roof & system warranty				
Payment term	10 or 20 Years	Paid in full	20 Years	20 Years

<https://www.tesla.com/support/energy/solar-panels/learn/subscription-solar>

Utility

20.0¢

Avoided Utility Cost per kWh

With Solar

12.5¢

Effective Solar Cost per kWh*

\$0

Upfront Cost (Installation Included)

- Your home will still be connected to the utility grid, so you'll still get bills from your utility. You'll need that power at night, but your overall energy costs should go down because you'll generate most of your own energy.
- You're locking in low, predictable energy costs. Your solar cost will only increase 2.90% every year. Utility rates tend to rise unpredictably every year. Increases vary, but are typically higher than your 2.90% increase. You can watch your savings grow over the next 20 years.

The 3 Types of Residential Solar

LEASE

Similar to a car lease

The Good:

- Provides equipment and installation at no cost
- Company maintains and insures equipment
- No tax considerations to qualify

The Bad:

- Customer only gets a limited portion of the power bill savings each month
- Customer builds no equity in their system and gets very limited home value appreciation with a lease
- A built-in 2.99% escalator means your monthly power bill doubles over 25 years
- Very low production guarantee means savings aren't guaranteed
- Moving from the home is nearly impossible without finding a qualified, interested buyer to take over the lease payments

P.P.A.

Another form of lease

The Good:

- Provides equipment and installation at no cost
- Company maintains and insures equipment
- No tax considerations to qualify

The Bad:

- Customer only gets a limited portion of the power bill savings each month
- Customer builds no equity in their system and gets very limited home value appreciation with a P.P.A.
- A built-in 2.99% escalator means your monthly power bill doubles over 25 years
- No production guarantee
- Moving from the home is nearly impossible without finding a qualified, interested buyer to take over the P.P.A. payments

OWNERSHIP

Best long term value for the customer

The Good:

- You own it and get all the financial upside
- Turn a monthly power bill into building an asset
- Ownership is the only option that appreciates your home's value by any meaningful amount
- Your monthly payment is fixed for the life of the loan (no escalators like on a lease or P.P.A.)
- Once the loan is paid off enjoy years of free, clean energy
- You get all the tax credits

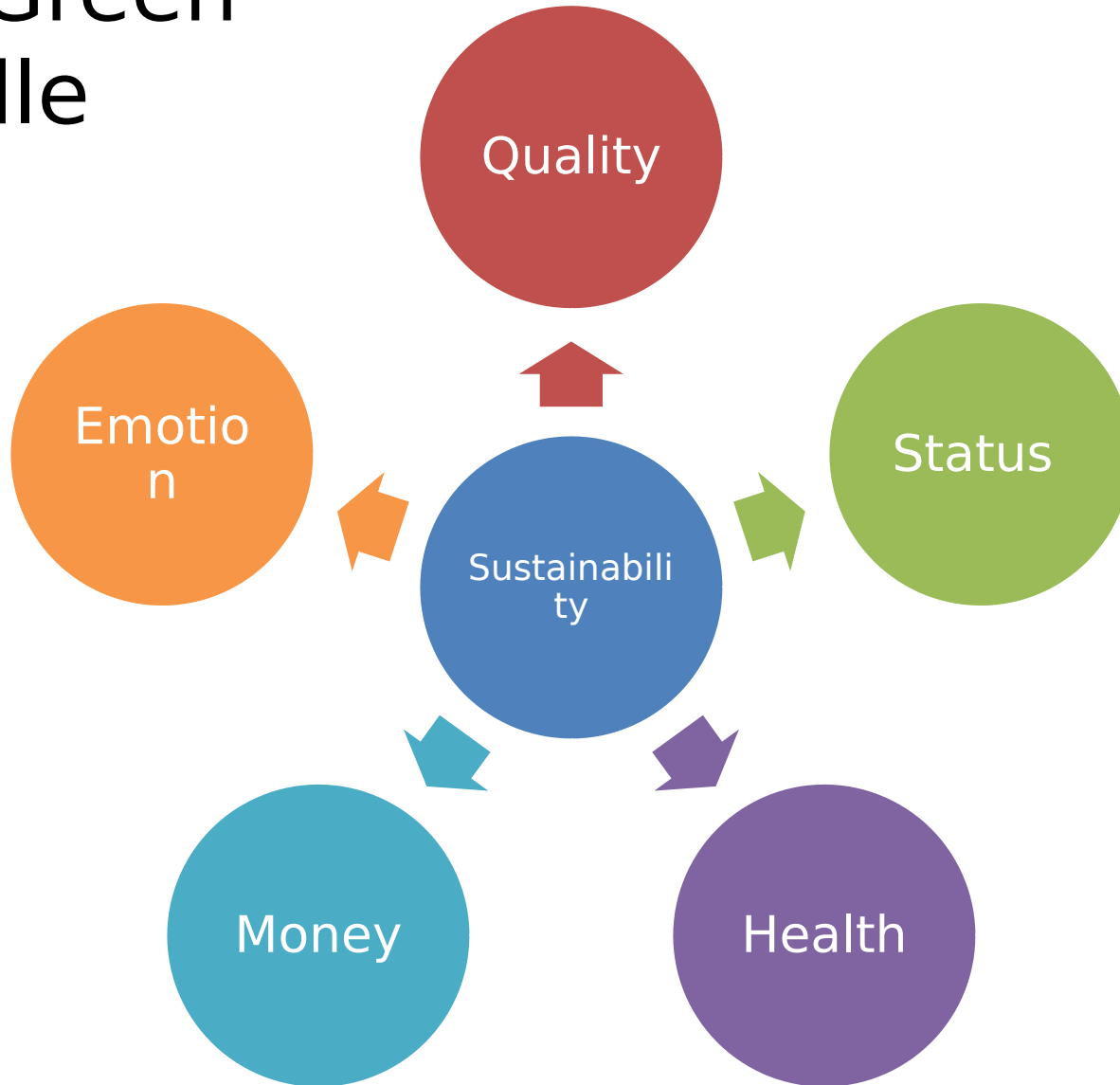
The Bad:

- Tax considerations to qualify

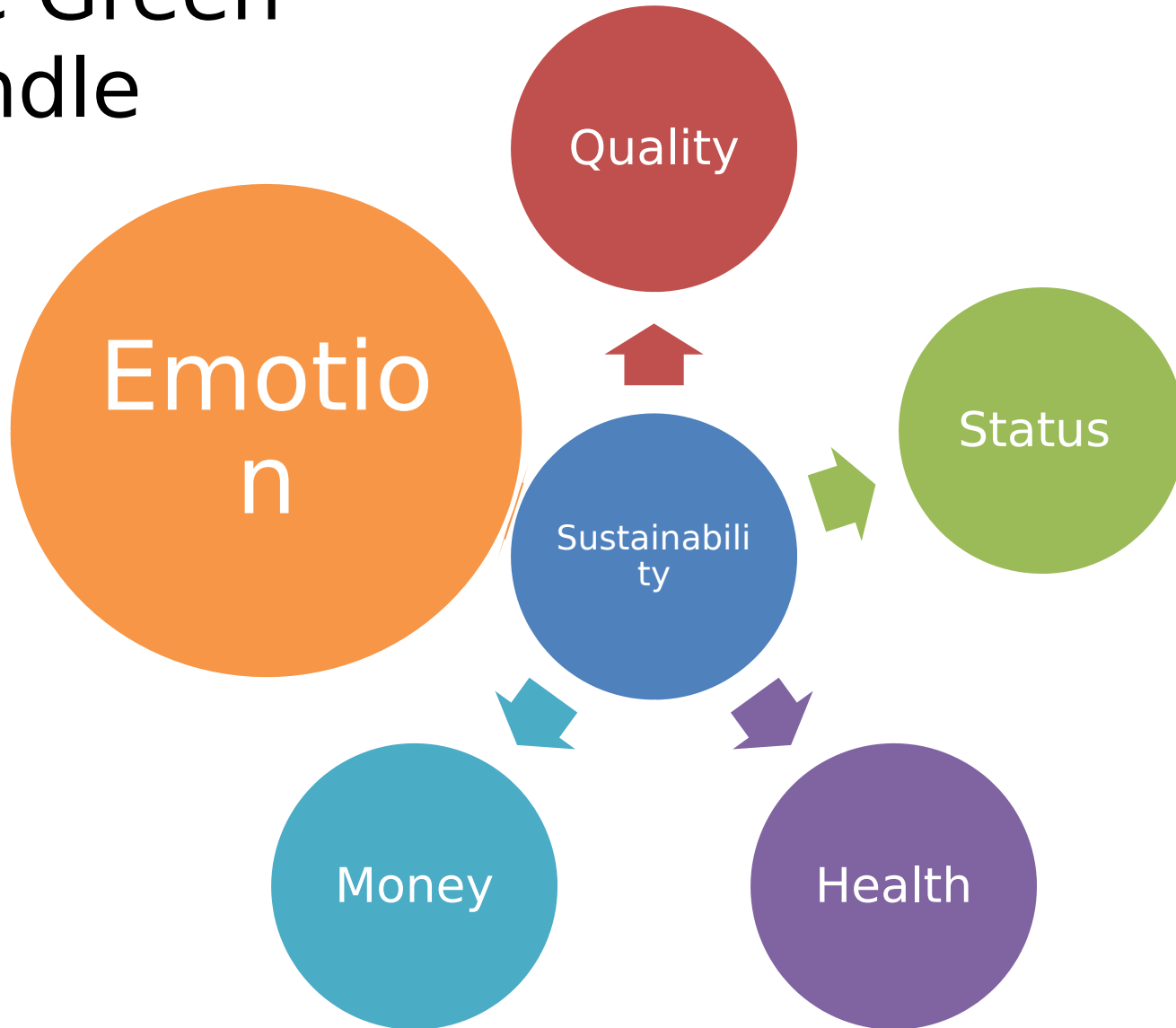
BEST
VALUE



The Green Bundle



The Green Bundle

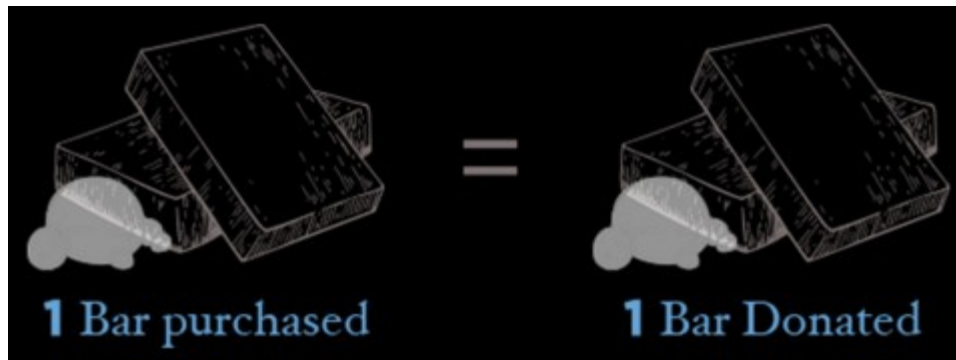


Emotion/Empathy



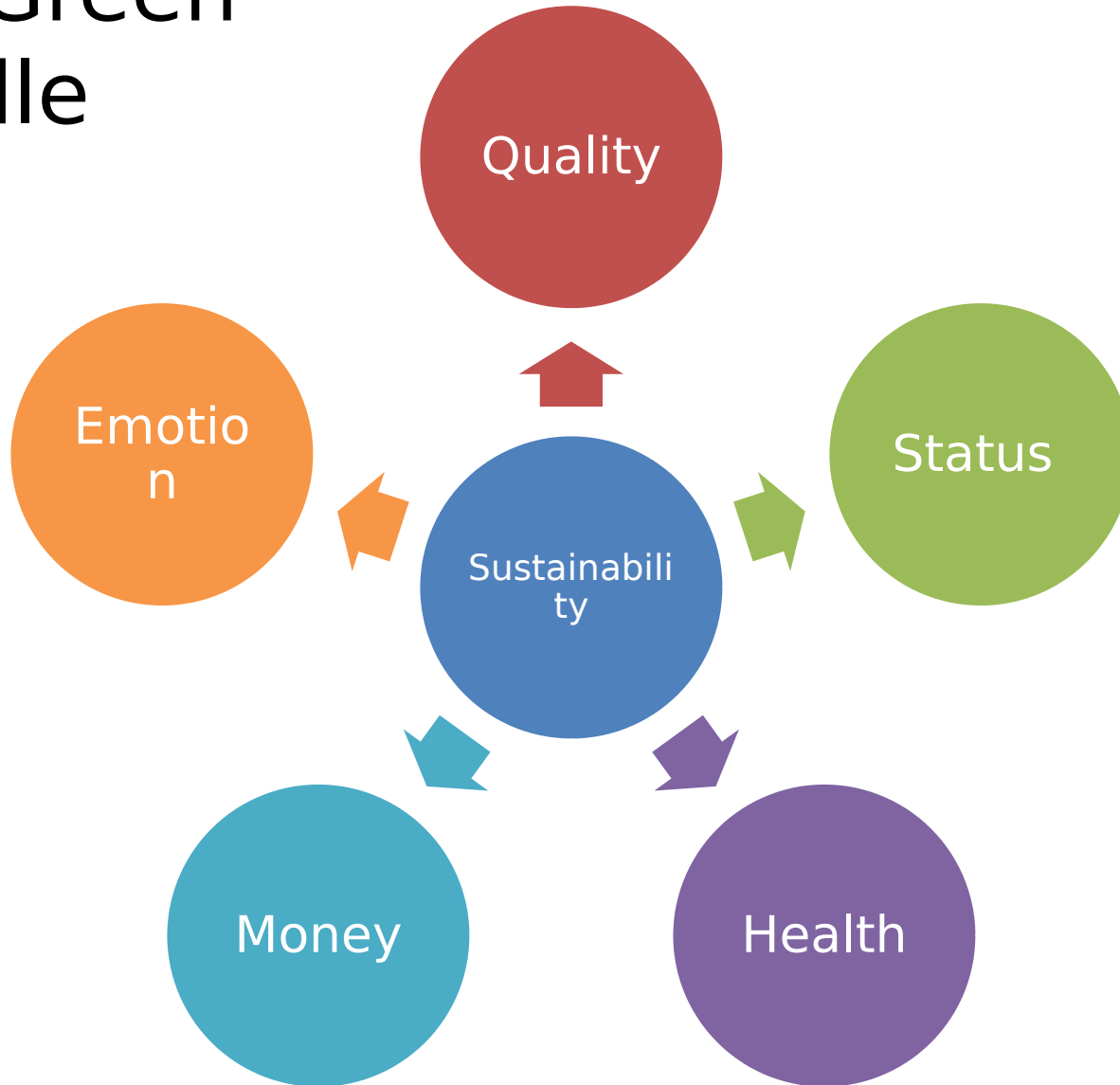


WARBY PARKER
eyewear



2,663,510 Bars Donated

The Green Bundle



When to bundle?

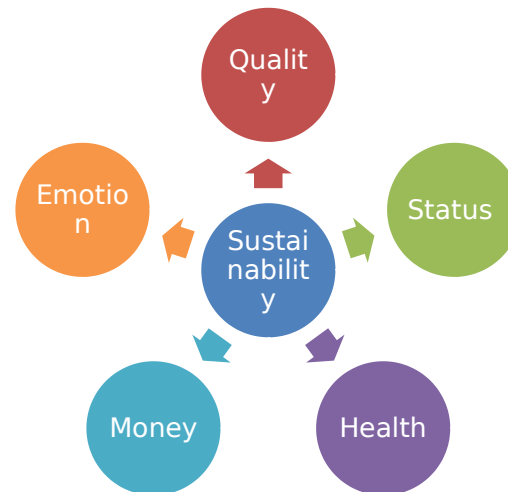
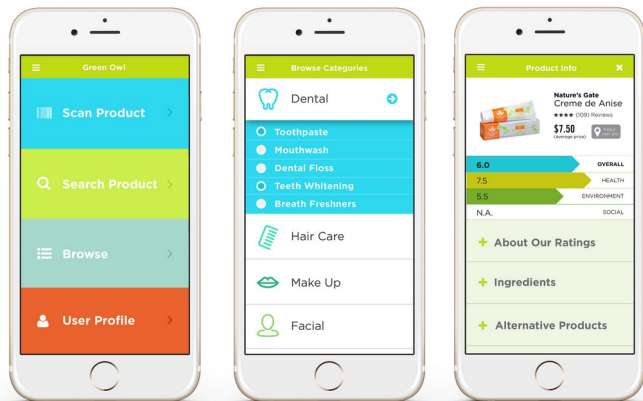
- Relevance of the benefits will vary with context
 - Connection with environmental damage and health most salient at critical junctures in the lives of consumers
 - Status associated with green depends on social group
- Silent bundle?

The Green Bundle

Inform consumer
on product
environmental
benefits

Frame
message with
private
benefits to
motivate
behavior

Change
consumption
on
behavior



Emotion

